

WHAT IS CLAIMED IS:

1. A method for preventing bowing of a precipitator collecting plate, comprising:
attaching a spring-like stiffening element to a fastening mechanism;
fastening the fastening mechanism to at least one of a fixed anchor and an adjacent anchoring collector plate; and
contacting the stiffening element with the precipitator collecting plate, thereby applying a spring-like force in a direction normal to a primary plane, which is generally co-linear but opposite in direction of a direction of bowing, of the precipitator collecting plate.
2. The method according to claim 1, wherein the contacting of the stiffening element with the precipitator collecting plate occurs on an outer surface of a curved edge portion of the collecting plate.
3. The method according to claim 1, wherein a contacting surface of the stiffening element with a mating surface of the plate resides in a plane located on a same general end of the fastening mechanism as a point at which the stiffening element is attached to the fastening mechanism.
4. The method according to claim 3, wherein the stiffening element has a smallest dimension in the direction of bowing.
5. The method according to claim 1, wherein a contacting surface of the stiffening element with a mating surface of the plate resides in a plane located on an opposite general end of the fastening mechanism as a point at which the stiffening element is attached to the fastening mechanism.

6. The method according to claim 5, wherein the stiffening element has a generally z-shape in a cross-section when viewed parallel to a plane parallel to a primary surface of the plate.
7. The method according to claim 1, wherein the fastening mechanism is a clamp.
8. The method according to claim 1, further comprising rapping the collecting plate, wherein the collecting plate has at least one degree of freedom of movement with respect to the stiffening element.
9. A bow-reduced precipitator collector plate assembly, comprising:
 - a precipitator collector plate having a mating surface;
 - a fastening mechanism configured to be attached to at least one of a fixed anchor and an adjacent anchoring collector plate, the fastening mechanism comprising:
 - a spring-like stiffening element attached to the fastening mechanism at an attachment point, the stiffening element having a contacting surface in contact with the plate mating surface, the stiffening element configured to apply a force in a direction normal to a primary plane, which is generally co-linear but opposite in direction of a direction of bowing, of the precipitator collecting plate.
10. The assembly according to claim 9, wherein collecting plate comprises a curved edge portion, and the contacting of the stiffening element with the precipitator collecting plate occurs on an outer surface of the curved edge portion of the collecting plate.

11. The assembly according to claim 9, wherein the contacting surface of the stiffening element with the mating surface of the plate resides in a plane located on a same general end of the fastening mechanism as a point at which the stiffening element is attached to the fastening mechanism.
12. The assembly according to claim 9, wherein the stiffening element has a smallest dimension in the direction of bowing.
13. The assembly according to claim 9, wherein a contacting surface of the stiffening element with a mating surface of the plate resides in a plane located on an opposite general end of the fastening mechanism as a point at which the stiffening element is attached to the fastening mechanism.
14. The assembly according to claim 9, wherein the stiffening element has a generally z-shape in a cross-section when viewed parallel to a plane parallel to a primary surface of the plate.
15. The assembly according to claim 9, wherein the fastening mechanism is a clamp.
16. The assembly according to claim 9, wherein the stiffening element is formed from sheet metal or thin plate stock.